PUBLIC HEALTH INFORMATION SHEET

SARS INFECTION CONTROL MEASURES

SARS-CoV is spread primarily through droplets (respiratory secretions) and close person-to-person contact. Large droplets are believed to be the primary route of infection. Close contact is defined as having cared for, lived with, or direct contact with the respiratory secretions and/or body fluids of a person with SARS. Although not proven, it is possible that SARS-CoV can also be spread more broadly through the air (airborne), by touching objects that have come in contact with the SARS virus, or by fecal contamination as the virus is excreted in the stool.

Because respiratory droplets are the primary method of transmission of SARS-CoV, the first line of defense for prevention and control of SARS is to practice:

- Standard Precautions;
- Contact Precautions;
- Airborne Infection Isolation; and
- Respiratory Hygiene.

More information about general infection control can be obtained in the fact sheet entitled "General Infection Control Measures", available at www.state.ma.us/dph. Information specific to emergency medical services personnel, healthcare personnel, and patients in in-patient settings, the community, workplaces, and schools is available in the *SARS Surveillance and Response Plan for Massachusetts*, available at www.state.ma.us/dph. Additional information regarding infection control practices is available on the CDC website at www.cdc.gov/ncidod/hip/isolat/isolat.htm.

Healthcare professionals who have contact with a person(s) suspected of having SARS should monitor themselves, and immediately contact employee health if respiratory or flu-like symptoms compatible with SARS develop.

Infection control measures for SARS include both Contact Precautions and Airborne Infection Isolation, as outlined in the General Infection Control fact sheet, available at www.state.ma.us/dph. In addition to these precautions, the following should receive special attention:

Personal Protective Equipment (PPE)

The proper use of personal protective equipment (PPE) can keep you, your coworkers, and your patients healthy by preventing the spread of infectious diseases. In a healthcare setting, PPE for SARS should include:

- Gloves
- Disposable gown
- Eye protection (regular eyeglasses are not enough)
- Appropriate fit-tested respirators (N-95 or higher)

Hand hygiene is also an essential personal protective practice against SARS.

Updated information on SARS and PPE can be obtained by visiting: www.cdc.gov/ncidod/sars/.

Respirator Use

Large droplets are believed to be the primary route of infection of SARS-CoV. It remains unclear whether SARS-CoV is transmitted by a true airborne route. As a result, Airborne Infection Isolation is advised for hospitalized SARS patients. A NIOSH-certified, fit-tested disposable N-95 respirator mask is recommended for protection from SARS. The use of higher-level respirators should be considered when employing droplet- and aerosol-generating devices and procedures such as ventilators, nebulizers, and endotracheal intubation.

If respirators are not available, a tight-fitting surgical mask should be worn around the nose and mouth. A tight-fitting surgical mask will protect against the spread of large droplets, believed to be the main route of infection of SARS. However, surgical masks cannot completely protect against the potential airborne spread of SARS.

Patient Placement

- Patients with or suspected of having SARS should be placed on Airborne Infection Isolation in a negative pressure room.
- Designate "clean" and "dirty" areas for isolation materials. Maintain a stock of clean patient care and PPE supplies outside the patient's room. Decide where contaminated linen and waste will be placed. Locate receptacles close to the point of use and separate from the clean supplies. Also designate the location where reusable PPE (e.g., goggles, face shields) will be placed for cleaning and disinfection before reuse.
- Limit the amount of patient care equipment brought into the room to that which is medically necessary. Provide each patient with patient-dedicated equipment (e.g., thermometer, blood pressure cuff, stethoscope).
- Limit staff to the number sufficient to meet patient care needs. Using staff who have been specially trained to care for patients with SARS may reduce opportunities for exposure, increase adherence to recommended infection control practices, and promote continuity of care.

Patient Transport

- Limit patient movement and transport outside the isolation room to medically necessary purposes. Whenever possible, use portable equipment to perform x-rays and other procedures in the patient's room.
- If transport or movement is necessary, ensure that the patient wears a surgical mask, puts on a clean patient gown, and performs hand hygiene before leaving the room. If a mask cannot be tolerated (e.g., due to the patient's age or deteriorating respiratory status), apply the most practical measures to contain respiratory secretions.
- Limit contact between SARS patients and others by using less traveled hallways and elevators when possible.

Linen and Laundry

Contact with textiles has not been implicated in the transmission of SARS-CoV. Therefore, no special handling procedures are recommended for linen and laundry that may be contaminated with SARS-CoV.

- Store clean linen outside patient rooms, taking into the room only linen needed for use during the shift.
- Place soiled linen directly into a laundry bag in the patient's room. Contain linen in a manner that prevents the linen bag from opening or bursting during transport and while in the soiled linen holding area.

Cleaning and Disinfection

The SARS virus can remain infectious on surfaces for up to 24 hours. Although little is known about the extent of environmental contamination in SARS patients' rooms, epidemiologic and laboratory evidence suggests that the environment could play a role in transmission. Therefore, cleaning and disinfection are critical to the control of SARS-CoV transmission. Environmental cleaning and disinfection for SARS-CoV follows the same principles described in the "Cleaning and Disinfection" fact sheet, available at www.state.ma.us/dph.

Visitors

- Limit visits to patients with known or possible SARS-CoV disease to persons who are necessary for the patient's emotional well-being and care.
- Visitors who have been in contact with the patient are a possible source of SARS-CoV. Therefore, schedule and control visits to allow for appropriate instruction on use of PPE and other precautions (e.g., hand hygiene, limiting surfaces touched) while in the patient's room.